Laurent Laplaze

List of Publications by Year
in descending order

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112 papers	9,014 citations	61984 43 h-index	43889 91 g-index
124 all docs	124 docs citations	124 times ranked	8372 citing authors

#	Article	IF	Citations
1	The auxin influx carrier LAX3 promotes lateral root emergence. Nature Cell Biology, 2008, 10, 946-954.	10.3	715
2	Arabidopsis lateral root development: an emerging story. Trends in Plant Science, 2009, 14, 399-408.	8.8	681
3	New Insights on Plant Salt Tolerance Mechanisms and Their Potential Use for Breeding. Frontiers in Plant Science, 2016, 7, 1787.	3.6	568
4	Auxin-dependent regulation of lateral root positioning in the basal meristem of Arabidopsis. Development (Cambridge), 2007, 134, 681-690.	2.5	540
5	Lateral root development in Arabidopsis: fifty shades of auxin. Trends in Plant Science, 2013, 18, 450-458.	8.8	536
6	Cytokinins Act Directly on Lateral Root Founder Cells to Inhibit Root Initiation. Plant Cell, 2008, 19, 3889-3900.	6.6	498
7	<i>AUX/LAX</i> Genes Encode a Family of Auxin Influx Transporters That Perform Distinct Functions during <i>Arabidopsis</i> Development. Plant Cell, 2012, 24, 2874-2885.	6.6	373
8	Root growth in Arabidopsis requires gibberellin/DELLA signalling in the endodermis. Nature Cell Biology, 2008, 10, 625-628.	10.3	273
9	SymRK defines a common genetic basis for plant root endosymbioses with arbuscular mycorrhiza fungi, rhizobia, and <i>Frankia</i> bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4928-4932.	7.1	259
10	Lateral root morphogenesis is dependent on the mechanical properties of the overlaying tissues. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5229-5234.	7.1	233
11	Effect of lead on root growth. Frontiers in Plant Science, 2013, 4, 175.	3.6	198
12	GAL4-GFP enhancer trap lines for genetic manipulation of lateral root development in Arabidopsis thaliana. Journal of Experimental Botany, 2005, 56, 2433-2442.	4.8	168
13	Diarch Symmetry of the Vascular Bundle in Arabidopsis Root Encompasses the Pericycle and Is Reflected in Distich Lateral Root Initiation. Plant Physiology, 2008, 146, 140-148.	4.8	163
14	An extended root phenotype: the rhizosphere, its formation and impacts on plant fitness. Plant Journal, 2020, 103, 951-964.	5.7	151
15	Time of day modulates low-temperature Ca2+signals in Arabidopsis. Plant Journal, 2006, 48, 962-973.	5.7	145
16	Marking cell lineages in living tissues. Plant Journal, 2005, 42, 444-453.	5.7	141
17	Auxin fluxes in the root apex co-regulate gravitropism and lateral root initiation. Journal of Experimental Botany, 2008, 59, 55-66.	4.8	134
18	A fluorescent hormone biosensor reveals the dynamics of jasmonate signalling in plants. Nature Communications, 2015, 6, 6043.	12.8	130

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19	Analyzing Lateral Root Development: How to Move Forward. Plant Cell, 2012, 24, 15-20.	6.6	125
20	The circadian clock rephases during lateral root organ initiation in Arabidopsis thaliana. Nature Communications, 2015, 6, 7641.	12.8	119
21	Lateral Root Formation in Arabidopsis: A Well-Ordered LRexit. Trends in Plant Science, 2019, 24, 826-839.	8.8	109
22	Inference of the Arabidopsis Lateral Root Gene Regulatory Network Suggests a Bifurcation Mechanism That Defines Primordia Flanking and Central Zones. Plant Cell, 2015, 27, 1368-1388.	6.6	105
23	Integrated genetic and computation methods for in planta cytometry. Nature Methods, 2012, 9, 483-485.	19.0	92
24	Armadillo-related proteins promote lateral root development in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1621-1626.	7.1	90
25	Characterization of a Casuarina glauca Nodule-Specific Subtilisin-like Protease Gene, a Homolog of Alnus glutinosa ag12. Molecular Plant-Microbe Interactions, 2000, 13, 113-117.	2.6	87
26	Auxin Influx Activity Is Associated with Frankia Infection during Actinorhizal Nodule Formation in Casuarina glauca Â. Plant Physiology, 2007, 144, 1852-1862.	4.8	84
27	Characterization of Pearl Millet Root Architecture and Anatomy Reveals Three Types of Lateral Roots. Frontiers in Plant Science, 2016, 7, 829.	3.6	79
28	cg12 Expression Is Specifically Linked to Infection of Root Hairs and Cortical Cells during Casuarina glauca and Allocasuarina verticillata Actinorhizal Nodule Development. Molecular Plant-Microbe Interactions, 2003, 16, 600-607.	2.6	78
29	Heart of Endosymbioses: Transcriptomics Reveals a Conserved Genetic Program among Arbuscular Mycorrhizal, Actinorhizal and Legume-Rhizobial Symbioses. PLoS ONE, 2012, 7, e44742.	2.5	77
30	Auxin Carriers Localization Drives Auxin Accumulation in Plant Cells Infected by <i>Frankia</i> in <i>Casuarina glauca</i> Actinorhizal Nodules. Plant Physiology, 2010, 154, 1372-1380.	4.8	75
31	An Auxin Transport-Based Model of Root Branching in Arabidopsis thaliana. PLoS ONE, 2008, 3, e3673.	2.5	74
32	Use of<i>Frankia</i>and Actinorhizal Plants for Degraded Lands Reclamation. BioMed Research International, 2013, 2013, 1-9.	1.9	71
33	Plant systems biology: network matters. Plant, Cell and Environment, 2011, 34, 535-553.	5.7	70
34	Flavan-Containing Cells Delimit Frankia-Infected Compartments in Casuarina glauca Nodules. Plant Physiology, 1999, 121, 113-122.	4.8	63
35	Expressed sequenceâ€tag analysis in Casuarina glauca actinorhizal nodule and root. New Phytologist, 2006, 169, 681-688.	7.3	61
36	Quiescent center initiation in the <i>Arabidopsis</i> lateral root primordia is dependent on the <i>SCARECROW</i> transcription factor. Development (Cambridge), 2016, 143, 3363-71.	2.5	61

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37	Casuarina glauca Prenodule Cells Display the Same Differentiation as the Corresponding Nodule Cells. Molecular Plant-Microbe Interactions, 2000, 13, 107-112.	2.6	57
38	The roots of future rice harvests. Rice, 2014, 7, 29.	4.0	57
39	Symbiotic Signaling in Actinorhizal Symbioses. Current Protein and Peptide Science, 2011, 12, 156-164.	1.4	56
40	Arbuscular mycorrhizal symbiosis in rice: Establishment, environmental control and impact on plant growth and resistance to abiotic stresses. Rhizosphere, 2018, 8, 12-26.	3.0	53
41	Infection-Related Activation of the cg12 Promoter Is Conserved between Actinorhizal and Legume-Rhizobia Root Nodule Symbiosis. Plant Physiology, 2004, 136, 3191-3197.	4.8	52
42	Early development and gravitropic response of lateral roots in<i>Arabidopsis thaliana</i>. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1509-1516.	4.0	49
43	The rhizosheath: from desert plants adaptation to crop breeding. Plant and Soil, 2020, 456, 1-13.	3.7	47
44	Response to early drought stress and identification of QTLs controlling biomass production under drought in pearl millet. PLoS ONE, 2018, 13, e0201635.	2.5	46
45	PUCHI regulates very long chain fatty acid biosynthesis during lateral root and callus formation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14325-14330.	7.1	46
46	Actinorhizal Symbioses: Recent Advances in Plant Molecular and Genetic Transformation Studies. Critical Reviews in Plant Sciences, 1998, 17, 1-28.	5.7	45
47	Casuarina Root Exudates Alter the Physiology, Surface Properties, and Plant Infectivity of Frankia sp. Strain CcI3. Applied and Environmental Microbiology, 2012, 78, 575-580.	3.1	43
48	Symbiotic Performance of Diverse Frankia Strains on Salt-Stressed Casuarina glauca and Casuarina equisetifolia Plants. Frontiers in Plant Science, 2016, 7, 1331.	3.6	43
49	Tolerance to environmental stress by the nitrogen-fixing actinobacterium Frankia and its role in actinorhizal plants adaptation. Symbiosis, 2016, 70, 17-29.	2.3	42
50	Lead Tolerance and Accumulation in Hirschfeldia incana, a Mediterranean Brassicaceae from Metalliferous Mine Spoils. PLoS ONE, 2013, 8, e61932.	2.5	40
51	Research note: The 35S promoter is not constitutively expressed in the transgenic tropical actinorhizal tree Casuarina glauca. Functional Plant Biology, 2002, 29, 649.	2.1	40
52	Symbiotic and non-symbiotic expression of cgMT1, a metallothionein-like gene from the actinorhizal tree Casuarina glauca. Plant Molecular Biology, 2002, 49, 81-92.	3.9	39
53	Composite Cucurbita pepo plants with transgenic roots as a tool to study root development. Annals of Botany, 2012, 110, 479-489.	2.9	39
54	Soybean (lbc3), Parasponia, and Trema Hemoglobin Gene Promoters Retain Symbiotic and Nonsymbiotic Specificity in Transgenic Casuarinaceae: Implications for Hemoglobin Gene Evolution and Root Nodule Symbioses. Molecular Plant-Microbe Interactions, 1998, 11, 887-894.	2.6	37

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55	Identification of potential transcriptional regulators of actinorhizal symbioses in Casuarina glauca and Alnus glutinosa. BMC Plant Biology, 2014, 14, 342.	3.6	34
56	Actinorhizal Symbioses: Recent Advances in Plant Molecular and Genetic Transformation Studies. Critical Reviews in Plant Sciences, 1998, 17, 1-28.	5.7	34
57	Biosensors for phytohormone quantification: challenges, solutions, and opportunities. Trends in Plant Science, 2013, 18, 244-249.	8.8	33
58	Evaluation of phenotypic and molecular typing techniques for determining diversity in Erwinia carotovora subsp. atroseptica. Journal of Applied Microbiology, 1999, 87, 770-781.	3.1	31
59	A role for auxin during actinorhizal symbioses formation?. Plant Signaling and Behavior, 2008, 3, 34-35.	2.4	30
60	Functional Analysis of the Metallothionein Gene cgMT1 Isolated from the Actinorhizal Tree Casuarina glauca. Molecular Plant-Microbe Interactions, 2007, 20, 1231-1240.	2.6	28
61	Field Trials Reveal Ecotype-Specific Responses to Mycorrhizal Inoculation in Rice. PLoS ONE, 2016, 11, e0167014.	2.5	28
62	Assessment of lead tolerance and accumulation in metallicolous and non-metallicolous populations of Hirschfeldia incana. Environmental and Experimental Botany, 2015, 109, 186-192.	4.2	27
63	A New Phenotyping Pipeline Reveals Three Types of Lateral Roots and a Random Branching Pattern in Two Cereals. Plant Physiology, 2018, 177, 896-910.	4.8	27
64	Inhibition of Auxin Signaling in <i>Frankia</i> Species-Infected Cells in <i>Casuarina glauca</i> Nodules Leads to Increased Nodulation. Plant Physiology, 2015, 167, 1149-1157.	4.8	25
65	Contribution of transgenic Casuarinaceae to our knowledge of the actinorhizal symbioses. Symbiosis, 2010, 50, 3-11.	2.3	24
66	The plant-growth-promoting actinobacteria of the genus Nocardia induces root nodule formation in Casuarina glauca. Antonie Van Leeuwenhoek, 2019, 112, 75-90.	1.7	24
67	Ã‰valuation deÂlaÂcontamination parÂlesÂÃ©lÃ©ments-traces mÃ©talliques dansÂune zone miniÃ¨re duÂMaroc oriental*. Cahiers Agricultures, 2010, 19, 273-279.	0.9	24
68	Pearl Millet Genome: Lessons from a Tough Crop. Trends in Plant Science, 2017, 22, 911-913.	8.8	23
69	Pearl millet genotype impacts microbial diversity and enzymatic activities in relation to root-adhering soil aggregation. Plant and Soil, 2021, 464, 109.	3.7	22
70	Development of a model estimating root length density from root impacts on a soil profile in pearl millet (Pennisetum glaucum (L.) R. Br). Application to measure root system response to water stress in field conditions. PLoS ONE, 2019, 14, e0214182.	2.5	21
71	Rhizobial root hair infection requires auxin signaling. Trends in Plant Science, 2015, 20, 332-334.	8.8	20
72	Comparison of four constitutive promoters for the expression of transgenes in the tropical nitrogen-fixing tree Allocasuarina verticillata. Plant Cell Reports, 2005, 24, 540-548.	5.6	19

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73	Role of auxin during intercellular infection of Discaria trinervis by Frankia. Frontiers in Plant Science, 2014, 5, 399.	3.6	19
74	PIN Transcriptional Regulation Shapes Root System Architecture. Trends in Plant Science, 2016, 21, 175-177.	8.8	18
75	Aquaporins are main contributors to root hydraulic conductivity in pearl millet [Pennisetum glaucum (L) R. Br.]. PLoS ONE, 2020, 15, e0233481.	2.5	18
76	Selection of arbuscular mycorrhizal fungal strains to improve Casuarina equisetifolia L. and Casuarina glauca Sieb. tolerance to salinity. Annals of Forest Science, 2018, 75, 1.	2.0	17
77	Inference of the gene regulatory network acting downstream of <scp>CROWN ROOTLESSÂ</scp>1 in rice reveals a regulatory cascade linking genes involved in auxin signaling, crown root initiation, and root meristem specification and maintenance. Plant Journal, 2019, 100, 954-968.	5.7	13
78	Remediation of Heavy Metal-Contaminated Soils and Enhancement of Their Fertility with Actinorhizal Plants. Soil Biology, 2015, , 355-366.	0.8	12
79	Physiological and genetic control of transpiration efficiency in African rice, <i>Oryza glaberrima</i> Steud. Journal of Experimental Botany, 2022, 73, 5279-5293.	4.8	12
80	Symbiotic ability of diverse Frankia strains on Casuarina glauca plants in hydroponic conditions. Symbiosis, 2016, 70, 79-86.	2.3	11
81	Effect of Casuarina Plantations Inoculated with Arbuscular Mycorrhizal Fungi and Frankia on the Diversity of Herbaceous Vegetation in Saline Environments in Senegal. Diversity, 2020, 12, 293.	1.7	11
82	AP2/ERF transcription factors orchestrate very long chain fatty acid biosynthesis during Arabidopsis lateral root development. Molecular Plant, 2021, 14, 205-207.	8.3	11
83	PUCHI represses early meristem formation in developing lateral roots of <i>Arabidopsis thaliana</i>. Journal of Experimental Botany, 2022, 73, 3496-3510.	4.8	11
84	Zinc, lead, and cadmium tolerance and accumulation in <i>Cistus libanotis, Cistus albidus</i>, and <i>Cistus salviifolius</i>: Perspectives on phytoremediation. Remediation, 2020, 30, 73-80.	2.4	10
85	When Plants Socialize: Symbioses and Root Development. , 0, , 209-238.		9
86	Root traits for low input agroecosystems in Africa: Lessons from three case studies. Plant, Cell and Environment, 2022, 45, 637-649.	5.7	9
87	The promoter of a metallothionein-like gene from the tropical tree Casuarina glauca is active in both annual dicotyledonous and monocotyledonous plants. Transgenic Research, 2003, 12, 271-281.	2.4	8
88	The cell-cycle promoter cdc2aAt from Arabidopsis thaliana is induced in the lateral roots of the actinorhizal tree Allocasuarina verticillata during the early stages of the symbiotic interaction with Frankia. Physiologia Plantarum, 2007, 130, 409-417.	5.2	8
89	Molecular Biology of Tropical Nitrogen-Fixing Trees in the Casuarinaceae Family. Forestry Sciences, 2000, , 269-285.	0.4	8
90	Expression pattern of ara12*, an Arabidopsis homologue of the nodule-specific actinorhizal subtilases cg12/ag12. Plant and Soil, 2003, 254, 239-244.	3.7	7

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91	Analysis of the Expression Pattern Conferred by the PsEnod12B Promoter from the Early Nodulin Gene of Pisum sativum in Transgenic Actinorhizal Trees of the Casuarinaceae Family. Plant and Soil, 2006, 281, 281-289.	3.7	7
92	Intraspecies variation in sodium partitioning, potassium and proline accumulation under salt stress in Casuarina equisetifolia Forst. Symbiosis, 2016, 70, 117-127.	2.3	7
93	Transcriptome profiling of laser-captured crown root primordia reveals new pathways activated during early stages of crown root formation in rice. PLoS ONE, 2020, 15, e0238736.	2.5	7
94	<scp>CROWN ROOTLESS1</scp> binds <scp>DNA</scp> with a relaxed specificity and activates <i>OsROP</i> and <i>OsbHLH044</i> genes involved in crown root formation in rice. Plant Journal, 2022, 111, 546-566.	5.7	7
95	Les symbioses actinorhiziennes fixatrices dâ€™azote : unÂexemple dâ€™adaptation auxÂcontraintes abiotiques duÂsol. Cahiers Agricultures, 2009, 18, 498-505.	0.9	6
96	Cultivated and wild pearl millet display contrasting patterns of abundance and co-occurrence in their root mycobiome. Scientific Reports, 2022, 12, 207.	3.3	5
97	The Dicot Root as a Model System for Studying Organogenesis. Methods in Molecular Biology, 2013, 959, 45-67.	0.9	4
98	Symbiotic Signaling in Actinorhizal Symbioses. Current Protein and Peptide Science, 2011, 999, 1-9.	1.4	3
99	Editorial: Harvesting Plant and Microbial Biodiversity for Sustainably Enhanced Food Security. Frontiers in Plant Science, 2018, 9, 42.	3.6	2
100	Editorial: Root Branching: From Lateral Root Primordium Initiation and Morphogenesis to Function. Frontiers in Plant Science, 2019, 10, 1462.	3.6	2
101	Establishment of Actinorhizal Symbioses. Soil Biology, 2013, , 89-101.	0.8	2
102	Quiescent center initiation in the Arabidopsis lateral root primordia is dependent on the SCARECROW transcription factor. Journal of Cell Science, 2016, 129, e1.2-e1.2.	2.0	1
103	Establishment of Actinorhizal Symbiosis in Response to Ethylene, Salicylic Acid, and Jasmonate. Methods in Molecular Biology, 2020, 2085, 117-130.	0.9	1
104	Early Events in Nodulation of Casuarina glauca by Frankia. , 2005, , 205-206.		0
105	Lateral root emergence: A paradigm for cell signaling in plants. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2008, 150, S144.	1.8	0
106	RACINE2.2: A Software Application for Processing and Mapping Spatial Distribution of Root Length and Potential Root Extraction Ratio from Root Counts on Trench Profiles. Methods in Molecular Biology, 2022, 2395, 247-258.	0.9	0
107	Postembryonic in Plants: Experimental Induction of New Shoot and Root Organs. Methods in Molecular Biology, 2022, 2395, 79-95.	0.9	0
108	Actinorhizal Nodules and Gene Expression. Current Plant Science and Biotechnology in Agriculture, 2008, , 195-199.	0.0	0

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109	Title is missing!. , 2020, 15, e0238736.		0
110	Title is missing!. , 2020, 15, e0238736.		0
111	Title is missing!. , 2020, 15, e0238736.		0
112	Title is missing!. , 2020, 15, e0238736.		0